

Title (en)

GROUP WAKE UP SIGNAL IN EXTENDED DISCONTINUOUS RECEPTION

Title (de)

GRUPPENWECKSIGNAL BEI VERLÄNGERTEM DISKONTINUIERLICHEM EMPFANG

Title (fr)

SIGNAL DE RÉVEIL DU GROUPE EN CAS DE RÉCEPTION DISCONTINUE PROLONGÉE

Publication

**EP 4216616 A1 20230726 (EN)**

Application

**EP 23161117 A 20201001**

Priority

- US 201962911163 P 20191004
- US 201962931770 P 20191106
- US 202017039123 A 20200930
- EP 20797271 A 20201001
- US 2020053811 W 20201001

Abstract (en)

The present disclosure relates to transmitting and receiving a group wake-up signal (WUS) in conjunction with an ungrouped WUS. A base station may group one or more UEs in a UE group, while other UEs may not be assigned to a UE group. The configuration of WUS resources and WUS sequences for grouped UEs and other UEs is a challenge. The base station may transmit, to one or more UEs in the UE group, a resource allocation of a group WUS resource within a set of WUS resources associated with a paging occasion that is assigned to the one or more UEs in the UE group. A UE, after receiving the resource allocation, may determine a location of the group WUS resource within the set of WUS resources. The UE may monitor for a group WUS at the determined location in the resource allocation of the group WUS resource.

IPC 8 full level

**H04W 52/02** (2009.01); **H04L 5/00** (2006.01); **H04W 68/02** (2009.01); **H04W 76/28** (2018.01)

CPC (source: CN EP KR US)

**H04L 5/0007** (2013.01 - KR US); **H04L 5/0037** (2013.01 - CN EP KR); **H04L 5/005** (2013.01 - US); **H04W 52/0216** (2013.01 - CN EP KR US);  
**H04W 52/0219** (2013.01 - CN EP KR US); **H04W 52/0229** (2013.01 - CN EP KR US); **H04W 68/02** (2013.01 - CN EP KR);  
**H04W 72/0446** (2013.01 - KR); **H04W 72/0453** (2013.01 - KR); **H04W 76/28** (2018.02 - CN EP KR); **H04L 5/0007** (2013.01 - EP);  
**H04W 72/0446** (2013.01 - EP); **H04W 72/0453** (2013.01 - EP); **Y02D 30/70** (2020.08 - EP KR)

Citation (search report)

- [A] WO 2019086674 A1 20190509 - SONY MOBILE COMMUNICATIONS INC [JP], et al
- [Y] ANONYMOUS: "3 Generation Partnership Project; Technical Specification Group Radio Access Network; Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode (Release 15)", 3GPP STANDARD; TECHNICAL SPECIFICATION; 3GPP TS 36.304, 3RD GENERATION PARTNERSHIP PROJECT (3GPP), MOBILE COMPETENCE CENTRE ; 650, ROUTE DES LUCIOLES ; F-06921 SOPHIA-ANTIPOLIS CEDEX ; FRANCE, vol. RAN WG2, no. V15.4.0, 25 June 2019 (2019-06-25), pages 1 - 55, XP051754352
- [Y] NTT DOCOMO ET AL: "UE-group wake-up signal for Rel.16 IoT", vol. RAN WG1, no. Chengdu, China; 20181008 - 20181012, 29 September 2018 (2018-09-29), XP051518789, Retrieved from the Internet <URL:<http://www.3gpp.org/ftp/tsg%5Fran/WG1%5FRL1/TSGR1%5F94b/Docs/R1%2D1811385%2Ezip>> [retrieved on 20180929]
- [A] MEDIATEK INC: "UE-Group WUS in NB-IoT", vol. RAN WG1, no. Gothenburg, Sweden; 20180820 - 20180824, 10 August 2018 (2018-08-10), XP051516332, Retrieved from the Internet <URL:<http://www.3gpp.org/ftp/tsg%5Fran/WG1%5FRL1/TSGR1%5F94/Docs/R1%2D1808959%2Ezip>> [retrieved on 20180810]
- [A] HUAWEI: "Consideration on UE group wake up signal (WUS)", vol. RAN WG3, no. Ljubljana, Slovenia; 20190826 - 20190830, 16 August 2019 (2019-08-16), XP051769636, Retrieved from the Internet <URL:[http://www.3gpp.org/ftp/tsg\\_ran/WG3\\_lu/TSGR3\\_105/Docs/R3-193418.zip](http://www.3gpp.org/ftp/tsg_ran/WG3_lu/TSGR3_105/Docs/R3-193418.zip)> [retrieved on 20190816]

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**US 11558817 B2 20230117; US 2021105718 A1 20210408;** BR 112022005700 A2 20220621; CN 114557052 A 20220527;  
CN 114557052 B 20240315; CN 118233994 A 20240621; CN 118233995 A 20240621; EP 4038985 A1 20220810; EP 4216616 A1 20230726;  
EP 4216617 A1 20230726; KR 20220079827 A 20220614; TW 202119846 A 20210516; US 11910319 B2 20240220; US 11956724 B2 20240409;  
US 2022124620 A1 20220421; US 2022124621 A1 20220421; US 2024179629 A1 20240530; WO 2021067602 A1 20210408

DOCDB simple family (application)

**US 202017039123 A 20200930;** BR 112022005700 A 20201001; CN 202080068089 A 20201001; CN 202410312027 A 20201001;  
CN 202410312029 A 20201001; EP 20797271 A 20201001; EP 23161117 A 20201001; EP 23161120 A 20201001;  
KR 20227010351 A 20201001; TW 109134432 A 20201005; US 2020053811 W 20201001; US 202117646629 A 20211230;  
US 202117646639 A 20211230; US 202418403625 A 20240103